¡ðØððÜ ACKNOWLEDGEMENT

The Central Planning Organization takes this opportunity to express hearty thanks to the Sr.DEN/Co-Ord/BZA & other officials and Inspectors of Engineering Department and Sr.DPO/BZA & other officials and staff of Personal department of BZA Division for their valuable guidance and cooperation in extending their support by giving necessary information/statistical data.

** ** **

<u>òãðòÏð METHODOLOGY</u>

The Work Study department has applied the following techniques for completion of the Work Study.

- 1. Collection of the details of workload.
- 2. Interaction with the Officers and Staff.
- 3. Observation of the pattern of working.
- 4. Critical examination of the existing system of working and
- 5. Assessment of manpower requirement for the existing work Load

ÞÑðÜ÷®ðð SYNOPSIS

- òãðæðÚð/SUBJECT: REVIEW OF STAFF STRENGTH OF ENGINEERING DEPARTMENT OVER VIJAYAWADA DIVISION.
- > NBðòlð lð lð AUTHORITY: Annual Programme of Work studies 2018-19.
- > ¡³ÚðÚðĐð çðü/STUDY No: WSSCR-31/2018-19.
- ÇÕÜÇØðá Òîðýâð ÇÕÜ/ REFERENCE File No: G.276/2/WSSCR-31/ 2018-19.
- > ±ðòÃðòãðòÏð "îð êð÷ëð/ AREA OF ACTIVITY: ENGINEERING DEPARTMENT OVER VIJAYAWADA DIVISION.
- As per the directives of SDGM, the Central Planning Organisation of South Central Railway has taken up Work-study on "Review of staff strength of Engineering department over BZA Division".

Application of Benchmarking Norms: Benchmarking is based on dynamic and comparative analysis and is a very useful tool to manage efficient deployment of staff and monitor effects of improvement in working practices, use of new technologies and level of outsourcing. Board in successive meetings has directed all units to achieve average of Indian Railway Benchmark.

> June 2018 IR average and Bench Marking of BZA divn is as follows.

Organization	MPR of BZA	IR avg MPR	Bench Mark MPR
P.Way	1.24	1.41	0.73
Buildings	0.18	0.20	0.04
Bridges	0.11	0.08	0.04

Engineering department of BZA division is below IR average in works & P.way organization. Above IR average in Bridges organizations.

Major changes have taken in the working system of Engineering department, as some works are being done on zonal contract. Many works have been outsourced. Recently the works department has out sourced number of activities in a big way House Keeping Services - Maintenance of service buildings (Divisional Office, Officers Rest House/Subordinate Rest house including maintenance of roads, roofs, maintenance of Lawn and Gardens etc) and rodent control treatment at stations.

In the **P.Way wing, some works are being outsourced** such as track maintenance works.

➤ In order to have first hand information the Work-study team visited all the SSE units, sections, yards and offices of the Engineering department of BZA division and observed the working pattern, various processes involved in maintenance of activities.

The Work-study team made an analysis on the requirement of staff based on the following parameters.

- a) No. of activities under out sourcing in Engineering department.
- **b)** The activities permitted to work under Contract in Engineering department.
- c) Requirement of Artisan/Khalasi staff on need base
- d) Recommendation to surrender Artisan/Khalasi staff due to **Contract works/outsourcing** activities and **posts are lying vacant/redundant**.

Requirement of Artisan/Khalasi staff on need base

> Multi purpose khalasi:

Multi purpose khalasi is required to assist the Artisan staff like Black smithy, welder, Brick Layer, carpenter etc. But, most of the activities in the works organization are under Zonal contract system and these activities are not regular. There are total 23 units in Works organization of BZA division and each unit requires 8 Multi purpose khalasis. Hence, 184 no.s Multi purpose khalasis are required. Leave Reserve @12.5% for 184 Multi purpose khalasis is 23. Hence, total requirement of Pipeline fitter is 184+23=207.

Designation	Sanction	Actual	Vacancy	Requirement	Excess
Multi purpose khalasi	221	200	21	207	14

The sanctioned strength of Multi purpose khalasi is 221, the actual staff is 200, requirement is 207 and found 14 staff excess on requirement.

> Brick Layer:

Most of the Brick Layer activities in the works organization are under Zonal contract system and the activity is not regular work. One Brick Layer with one khalasi is required for each unit. There are total 23 units in Works organization of BZA division. Hence, 23 no.s Brick Layers are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 Brick Layer is 3. Hence, total requirement of Brick Layer is 23+3=26. In case of exigency, multipurpose khalasi may be used.

Designation	Sanction	Actual	Vacancy	Requirement	Excess on requirement
Brick Layer	46	22	24	26	20

The sanctioned strength of Brick Layer is 46, the actual staff is 22, requirement is 26 and found 20 staff excess on requirement.

➤ **Painter**: Since most of the Painter activities in the works organization are under Zonal contract system and the activity is not regular work. In case of exigency, multipurpose khalasi may be used.

Designation	Sanction	Actual	Vacancy	Requirement	Excess on requirement
Painter	13	9	4	9	4

The sanctioned strength of Painter is 13, the actual staff is 9, requirement is 9 and found 4 staff excess on requirement.

As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/SCR advised all DRMs to initiate action to **surrender vacant/redundant posts like Black smithy, carpenter, Luskar, painter, Plumber etc.**

➤ Carpenter: Since most of the carpenter activities in the works organization are under Zonal contract system and the activity is not regular work. One carpenter with one khalasi is required for each unit. There are total 23 units in Works organization of BZA division. Hence, 23 no.s carpenters are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 Carpenter is 3. Hence, total requirement of Carpenter is 23+3=26. In case of exigency, multipurpose khalasi may be used.

Designation	Sanction	Actual	Vacancy	Requirement	Excess on requirement
Carpenter	43	16	27	26	17

The sanctioned strength of carpenter is 43, the actual staff is 16, requirement is 26, and found 17 staff excess on requirement.

- ➤ As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/SCR advised all DRMs to intitiate action to surrender vacant/redundant posts like Black smithy, carpenter, Luskar, painter, Plumber etc.
- > SM fitter/Plumber: Most of the SM fitter/Plumber activities in the works

organization are under Zonal contract system and the activity is not regular work. One no. Pipeline fitter/Plumber is required for each unit. There are total 23 units in Works organization of BZA division. Hence, **23 no's** SM fitter/Plumber are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 SM fitter/Plumber is 3. Hence, total requirement of carpenters is 23+3=26.

Designation	Sanction	Actual	Vacancy	Requirement	Excess
SM fitter/Plumber	38	21	17	26	12

The sanctioned strength of SM fitter/Plumber is 38, the actual staff is 21, requirement is 26, and found 12 staff excess on requirement.

Summary of Requirement of Artisan/khalasi staff on need based on practical observation

S.No.	Design	Sanction	Actual	Vacancy	Require	Excess on
					ment	equirement
1	Multi purpose khalasi	221	200	21	207	14
2	Brick Layer	46	22	24	26	20
3	Painter	13	9	4	9	4
4	Carpenter	43	16	27	26	17
5	Plumber	38	21	17	26	12
		361	268	93	294	67

The sanctioned strength of above artisan/khalasi staff is 361, the actual staff is 268, requirement is 294, and found 67 staff excess on requirement.

As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/ SCR advised all DRMs to intitiate action to surrender vacant posts like Black smithy, carpenter, Luskar, painter, Plumber etc.____

Hence, Recommended as follows.

òcðòiðòÜäð RECOMMENDATION:

> It is recommended to surrender 67 posts from sanctions of Engineering department over BZA division.

1.0 NBçðÃððãðĐðð INTRODUCTION:

1.1 RAILWAY'S ROLE:

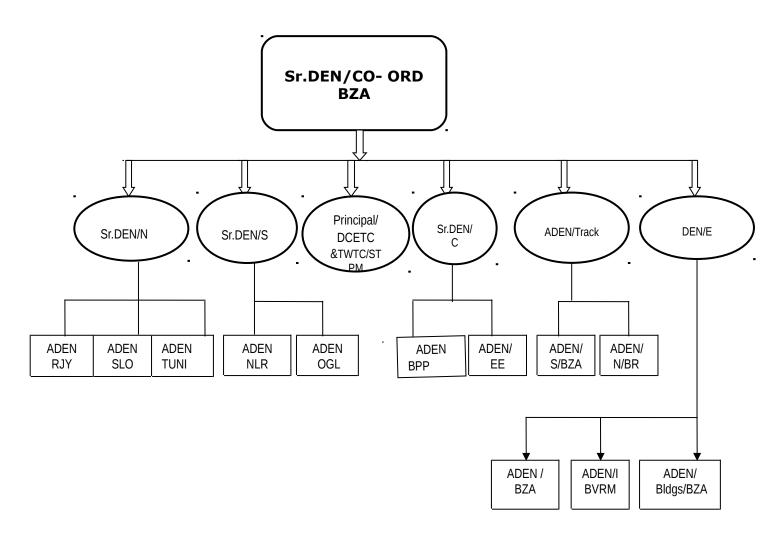
Indian Railways is a premier transport service provider to the nation and is vested with the responsibility of carrying bulk of freight and passenger traffic across the country at rates affordable for public. The Indian Railways operates through 18 Zones with 73 Divisions to serve the above objective and its operations cover twenty nine states and seven union territories and also provide limited international services to Nepal, Bangladesh and Pakistan.

- 1.2 **GENESIS OF THE REPORT**: Engineering Department consists of three organizations namely Permanent way, Works, and Bridges. The prime job of engineering department is to keep on maintaining the track in good fettle from beginning to the end, which is done by Permanent way. Works Organisation maintains the Railway properties such as buildings, stations etc and looks after the passenger amenities at station, supply of water to Railway Colonies & stations, and maintains the sewage lines, roads & premises of Railway colonies etc. Bridge Organisation constructs and maintains Railway Bridges where Railway Track is available.
- 1.3 Civil Engineering infrastructure is the largest static infrastructure of Indian Railways comprising of track, bridges, land, etc. Management of this huge infrastructure has to be done in accordance with the organization's vision. Civil engineering department of Indian Railways manages and maintains all these infrastructures. Further, it has key role in the area of infrastructure development, technological leap in various fields, high-speed travel and development of world-class stations.
- 1.4 In view of the above, the Central Planning organization under the control of SDGM conducted work-study of Engineering department over BZA Division of South Central Railway and humbly presents this report.

2.0 **EXISTING SCENARIO:**

2.1 ORGANISATION: The Civil Engineering Department of Vijayawada Division is headed by Sr. DEN/co-ord and assisted by Sr.DEN/South, Sr.DEN/North, Sr.DEN/C and DEN/East, ADEN/Track. In turn, Sr.DENs and DEN are assisted by ADENs and SSE/SEs/JEs.

For the administrative convenience and close supervision and inspection, total KM over the division has been divided into small segments as far as practicable and kept under the control of Sr. Section Engineers, who are also responsible for their jurisdictions. These SSEs are controlled directly by ADENs posted at suitable places, so that coordination will be easy. These ADENs are answerable to Sr.DEN/DENs for their respective jurisdiction who are normally placed at division Headquarters which are detailed in the chart below:



SSE/SE/JE's

The list of SSE/SE/JE's are working under the control of the respective ADENs as follows.

SSE/P.WAY/NLR	SSE/P.WAY/KVZ	SSE/Works/NLR	SSE/Works/GDV
SSE/P.Way/BTTR	SSE/P.Way/OGL	SSE/Works/GDR	SSE/Works/BVRM
SSE/P.Way/CLX	SSE/P.Way/NZD	SSE/Works/BTTR	SSE/Works/E/BZA
SSE/P.Way/BPP	SSE/P.Way/EE	SSE/Works/TEL	SSE/Works/W/BZA
SSE/P.Way/TEL	SSE/P.Way/SLO	SSE/Works/RJY	SSE/Works/WA/BZA
SSE/P.Way/TDD	SSE/P.Way/PAP	SSE/Works/NDD	SSE/WA/RYP
SSE/P.Way/RJY	SSE/P.Way/GDV	SSE/Works/BZA	SSE/Works/G.PET/BZA
SSE/P.Way/S/BZA	SSE/P.Way/KKLR	SSE/Works/OGL	SSE/Works/RYP
SSE/P.Way/N/BZA	SSE/P.Way/BVRM	SSE/Works/EE	SSE/Works/KCC
SSE/P.Way/TPL/ DEPOT	SSE/P.Way/TUNI	SSE/Works/KVZ	JE/Works/BPP
SSE/P.Way/AKP		SSE/Works/SLO	SSE/DCETC/STPM
		JE/Works/TUNI	SSE/TWC/STPM
		JE/Works/STPM	SSE/USFD/BZA

2.2 SCALE CHECK: The consolidated Scale check of Staff of Civil Engineering/BZA is furnished below:

P.Way

S. No	Designation	Pay Band	grade pay	Sanc tion	Actual	Vacancy
1	Senior Section Engineer (P.Way)	9300-34800	4600	140	95	45
2	Junior Engineer(P.Way)	9300-34800	4200	69	64	5
3	Senior Section Engineer(Drg)	9300-34800	4600	9	5	4
4	Junior Engineer(Drg)	9300-34800	4200	8	5	3
5	Senior Section Engineer(Design)	9300-34800	4600	0	1	-1
6	Senior Section Engineer(USFD)	9300-34800	4600	10	11	-1
7	Junior Section Engineer(USFD)	9300-34800	4200	8	3	5
		Sub Total		244	184	60
8	Technician(MCM)/BL	9300-34800	4200	3	0	3
9	Technician I /BL	5200-20200	2800	6	0	6
10	Technician II /BL	5200-20200	2400	1	0	1
11	Technician III /BL	5200-20200	1900	0	0	0
		Sub Total		10	0	10
12	Technician(MCM)/B.Smith	9300-3480	0 4200	12	2	10

13	Technician I /B.Smith	5200-20200	2800	23	2	21
14	Technician II /B.Smith	5200-20200	2400	4	10	-6
15	Technician III /B.Smith	5200-20200	1900	2	0	2
		Sub Total		41	14	27
16	Technician(MCM)/Carpenter	9300-34800	4200	3	1	2
17	Technician I /Carpenter	5200-20200	2800	7	0	7
18	Technician II /Carpenter	5200-20200	2400	1	2	-1
19	Technician III /Carpenter	5200-20200	1900	0	0	0
		Sub Total		11	3	8
20	Technician(MCM)/Painter	9300-34800	4200	4	1	3
21	Technician I /Painter	5200-20200	2800	7	4	3
22	Technician II /Painter	5200-20200	2400	0	3	-3
		Sub Total		11	8	3
23	Technician(MCM)/Fitter	9300-34800	4200	2	1	1
24	Technician I /Fitter	5200-20200	2800	4	1	3
25	Technician II /Fitter	5200-20200	2400	1	2	-1
26	Technician III /Fitter	5200-20200	1900	0	1	-1
		Sub Total		7	5	2
27	Technician/MCM/GM Striker	9300-34800	4200	5	2	3
28	Technician I / GM Striker	9300-34800	2800	9	3	6
29	Technician I I/ GM Striker	9300-34800	2400	1	0	1
		Sub Total		15	5	10
30	Technician/MCM/Welder	9300-34800	4200	5	0	5
31	Technician I / Welder	9300-34800	2800	9	0	9
32	Technician I I/ Welder	9300-34800	2400	1	1	0
33	Technician III/ Welder	9300-34800	1900	3	4	-1
		Sub Total		18	5	13
34	Technician III/Ballast Train checker	9300-34800	1900	0	1	-1
		Sub Total		0	1	-1
35	Khalasi/BL	5200-20200	1800	8	5	3
36	Khalasi/BS	5200-20200	1800	10	3	7
37	Khalasi/Carpenter	5200-20200	1800	8	5	3
38	Khalasi/Fitter	5200-20200	1800	5	3	2
39	Khalasi/Painter	5200-20200	1800	3	3	0
40	Khalasi/Welder	5200-20200	1800	45	18	27
		Sub Total		79	37	42
41	Track Maintainer IV	5200-20200	1800	2898	2655	243
42	Track Maintainer III	5200-20200	1900	1160	897	263
43	Track Maintainer II	5200-20200	2400	634	438	196
44	Track Maintainer I	5200-20200	2800	317	165	152
		Sub Total		5009	4155	854

45	Instructor/P.Way	9300-34800	4600	2	5	-3
46	Instructor/P.Way	9300-34800	4200	2	1	1

47	Instructor/P.Way	5200-20200	2800	1	1	0
		Sub Total		5	7	-2
48	Ch.OS	9300-34800	4600	19	8	11
49	OS	9300-34800	4200	43	32	11
50	Sr.Clerk	5200-20200	2800	7	8	-1
51	Jr.Ckerk cum typist	5200-20200	1900	8	14	-6
		Sub Total		77	62	15
52	Khalasi (Loading/unloading)/TPL	5200-20200	1800	29	27	2
53	Sr.khalasi/USFD	5200-20200	1800	6	3	3
		Sub Total		35	30	5
54	Technician (FTR/Civil)/MFT	5200-20200	2800	1	0	1
				1	0	1
55	Sr.Lascar/W.Man	5200-20200	1800	10	7	3
		Sub Total		10	7	3
	TMO (Track Machine)					
56	SSE/TM	9300-34800	4600	70	62	8
57	JE/TM	9300-34800	4200	34	10	24
58	JE/Drg	9300-34800	4200	3	1	2
59	MCM/TM	9300-34800	4200	22	23	-1
60	Tech I/TM	5200-20200	2800	62	44	18
61	Tech II/TM	5200-20200	2400	31	15	16
62	Tech III/TM	5200-20200	1900	41	35	6
63	Khalasi/TM	5200-20200	1800	131	131	-0
64	Material chaser	5200-20200	1800	1	0	1
65	Ward keeper	5200-20200	2400	1	0	1
66	Drafts man Drg	5200-20200	2800	2	0	2
		Sub Total		398	321	77

Summary of P.Way organization

S. No	Designation	Sanction	Actual	Vacancies
1	SSE/JE	244	184	60
2	Technician/BL	10	0	10
3	Technician/BS	41	14	27
4	Technician/Carpenter	11	3	8
5	Technician/painter	11	8	3
6	Technician/Fitter	7	5	2
7	Technician/GM Sticker	15	5	10
8	Technician/Welder	18	5	13
9	Technician III/Ballast Train checker	0	1	-1
10	Technician/BTC/Khalasi	79	37	42
11	Track maintainer	5009	4155	854
12	Sr instructor/instructor	5	7	-2
13	Office staff	77	62	15
14	Khalasi (Loading/unloading)/TPL/USFD	35	30	5
15	Technician (FTR/Civil)/MFT	1	0	1
16	Sr.Lascar/W.Man	10	7	3

17	TMO/SSE/JE/Technician	398	32:	1		77	
		5971		4844		1127	
WORK		I			1	ı	
1	Senior Section Engineer (Works)	9300-34800	4600	15	18	-3	
2	Junior Engineer(Works)	9300-34800	4200	13	25	-12	
3	Senior Section Engineer(Drg)	9300-34800	4600	3	1	2	
4	Junior Engineer(Drg)	9300-34800	4200	3	2	1	
		Sub Total		34	46	-12	
5	Technician(MCM)/BL	9300-34800	4200	13	4	9	
6	Technician I /BL	5200-20200	2800	26	5	21	
7	Technician II /BL	5200-20200	2400	4	1	3	
8	Technician III /BL	5200-20200	1900	3	12	-9	
		Sub Total		46	22	24	
9	Technician(MCM)/B.Smith	9300-34800	4200	2	2	0	
10	Technician I /B.Smith	5200-20200	2800	4	2	2	
11	Technician II /B.Smith	5200-20200	2400	1	3	-2	
12	Technician III /B.Smith	5200-20200	1900	0	0	0	
		Sub Total		7	7	0	
13	Technician(MCM)/ Carpenter	9300-34800	4200	13	3	10	
14	Technician I /Carpenter	5200-20200	2800	25	11	14	
15	Technician II /Carpenter	5200-20200	2400	2	2	0	
16	Technician III /Carpenter	5200-20200	1900	3	0	3	
		Sub Total		43	16	27	
17	Technician(MCM)/Painter	9300-34800	4200	5	1	4	
18	Technician I /Painter	5200-20200	2800	8	4	4	
19	Technician II /Painter	5200-20200	1900	0	0	0	
20	Technician III /Painter	5200-20200	1900	0	4	-4	
		Sub Total		13	9	4	
21	Technician(MCM)/SM Fitter	9300-34800	4200	7	5	2	
22	Technician I /SM Fitter	5200-20200	2800	18	11	7	
23	Technician II /SM Fitter	5200-20200	2400	7	3	4	
24	Technician III /Fitter	5200-20200	1900	6	2	4	
		Sub Total		38	21	17	
25	Crane/Field man/RR driver	5200-20200	2800	1	0	1	
26	Technician I /Tinker	5200-20200	2800	1	1	0	
		Sub Total		2	1	1	
27	Khalasi(Works)/BL	5200-20200	1800	22	7	15	
28	Khalasi(Works)/BS	5200-20200	1800	4	2	2	
29	Khalasi(Works)/Carpenter	5200-20200	1800	13	10	3	
30	Khalasi(Works)/SM Fitter	5200-20200	1800	8	2	6	
		Sub Total		47	21	26	
31	Khalasi(Works)/Painter	5200-20200	1800	0	0	0	
32	Khalasi(Works)/Welder	5200-20200	1800	1	2	-1	
33	Khalasi/ Caretaker	5200-20200	1800	36	46	-10	
34	Khalasi/Watchman/ Chowkidar/ORH	5200-20200	1800	12	11	1	

35	Comp. Gateman	5200-20200	1800	13	16	-3
36	Sanitary Khalasi	5200-20200	1800	4	4	0
37	Valveman	5200-20200	1800	0	23	-23
38	Gardener	5200-20200	1800	1	1	0
39	Khalasi (Multipurpose)	5200-20200	1800	221	200	21
40	Lascar	5200-20200	1800	0	1	-1
		Sub Total		288	304	-16
41	Ch.OS	9300-34800	4600	3	0	3
42	OS	9300-34800	4200	10	7	3
43	Sr.Clerk	5200-20200	2800	6	5	1
44	Jr.Clerk-cum-Typist	5200-20200	1900	4	5	-1
		Sub Total		23	17	6

Summary of Works organization

S. No	Designation	Sanction	Actual	Vacancies
1	SSE/JE	34	46	-12
2	Technician/BL	46	22	24
3	Technician/BS	7	7	0
4	Technician/Carpenter	43	16	27
5	Technician/painter	13	9	4
6	Technician/SM Fitter	38	21	17
7	Crane/Field/Technician	2	1	1
8	Khalasis/BL/BS/Carpenter/Works	47	21	26
9	Khalasis/Painter/welder/custodian/chowkidar/M.Purpose	288	304	-16
10	Office staff	23	17	6
	Sub Total	541	464	77

BRIDGES

1	Senior Section Engineer	9300-34800	4600	9	8	1
	(Bridges)	7500 5 - 000	1000			1
2	Junior Engineer(Bridges)	9300-34800	4200	5	4	1
3	Senior Section Engineer(Drg)	9300-34800	4600	3	3	0
4	Junior Section Engineer(Drg)	9300-34800	4200	2	2	0
		Sub Total		19	17	2
6	Technician(MCM)/BL	9300-34800	4200	1	0	1
7	Technician I /BL	5200-20200	2800	1	0	1
8	Technician II /BL	5200-20200	2400	0	1	-1
		Sub Total		2	1	1
9	Technician(MCM)/B.Smith	9300-34800	4200	4	0	4
10	Technician I /B.Smith	5200-20200	2800	8	2	6
11	Technician II /B.Smith	5200-20200	2400	1	0	1
12	Technician III /B.Smith	5200-20200	1900	1	2	-1
		Sub Total		14	4	10
13	Technician(MCM)/Carpenter	9300-34800	4200	1	0	1
14	Technician I /Carpenter	5200-20200	2800	2	0	2
		Sub Total		3	0	3
15	Technician(MCM)/Painter	9300-34800	4200	1	0	1
16	Technician I /Painter	5200-20200	2800	2	0	2

		Sub Total		3	0	3
17	Technician(MCM)/Erector	9300-34800	4200	1	0	1
18	Technician I /Erector	5200-20200	2800	2	0	2
19	Technician II /Erector	5200-20200	2400	0	1	-1
		Sub Total		3	1	2
20	Technician I /Marker	5200-20200	2800	1	0	1
21	Technician/MCM/Welder	9300-34800	4200	3	1	2
22	Technician I / Welder	5200-20200	2800	6	1	5
23	Technician I I/ Welder	5200-20200	2400	0	1	-1
24	Technician III/ Welder	5200-20200	1900	2	3	-1
		Sub Total		12	6	6
25	Technician/MCM/AC mechanic compressor	9300-34800	4200	2	0	2
26	Technician I/MCM/AC mechanic compressor	5200-20200	2800	5	2	3
27	Technician II/MCM/AC	5200-20200	2400	1	1	0
		Sub Total		8	3	5
28	Technician/MCM/Revitter	9300-34800	4200	9	3	6
29	Technician I/ Revitter	5200-20200	2800	18	2	16
30	Technician II/ Revitter	5200-20200	2400	3	1	2
31	Technician III/ Revitter	5200-20200	1900	4	1	3
		Sub Total		34	7	27
32	Khalasi/BL	5200-20200	1800	1	1	0
33	Khalasi/BS	5200-20200	1800	18	11	7
34	Khalasi/Carpenter	5200-20200	1800	2	1	1
35	Khalasi/Compressor	5200-20200	1800	5	9	-4
36	Khalasi/Painter	5200-20200	1800	4	0	4
37	Khalasi/welder	5200-20200	1800	18	7	11
38	Khalasi/Marker	5200-20200	1800	1	0	1
39	Khalasi/Revitter	5200-20200	1800	63	41	22
40	Helper II	5200-20200	1800	0	2	-2
		Sub Total		112	72	40
41	Ch.OS	9300-34800	4600	1	0	1
42	OS	9300-34800	4200	4	2	2
43	Sr.Clerk	5200-20200	2800	3	0	3
44	Jr.Clerk-cum-Typist	5200-20200	1900	2	1	1
		Sub Total		10	3	7
45	Spl. Cowkidar(Bridges)	5200-20200	1900	1	6	-5
		Sub Total		1	6	-5

Summary of Brdges organization

	1, 01 21 4800 01841112411011			
S. No	Designation	Sanction	Actual	Vacancy
1	SSE/JE	19	17	2
2	Technician/BL	2	1	1
3	Technician/BS	14	4	10
4	Technician/Carpenter	3	0	3
5	Technician/Erector	3	1	2
6	Technician/Marker	1	0	1
7	Technician/Welder	11	6	5

	Sub Total	218	120	98
12	Spl. Cowkidar(Bridges)	1	6	-5
11	Office staff	10	3	7
10	Khalasis	112	72	40
9	Technician/Revitter	34	7	27
8	Technician/AC	8	3	5

Summary of Engineering organization

S. No	Designation	sanction	Actual	Vacancy
1	P.Way including TMO	5971	4844	1127
2	Works	541	464	77
3	Bridges	218	120	98
	Grand Total	6730	5428	1302

2.3 **DUTIES OF ENGINEERING STAFF (WORKS)**:

SSE/SEWORKS: SSE/SE (Works) performs duties both in office and in field. The works are broadly classified as follows:

- a) Executive works.
- b) Store Works.
- c) Establishment works.
- d) Industrial relations, staff welfare etc.

The normal duties performed in the office of the SSE/SE (Works) are:

Official work:

- a) Maintenance of registers connected to staff quarters and service buildings.
- b) Periodical verification of stores and placement of indents for procurement of material.
- c) Maintain attendance, leave, pass and other staff welfare matters and office correspondence.

Field work: Inspection of

- a) staff Quarters
- b) Service / Welfare Buildings
- c) Roads sewage lines
- d) Maintenance of gardens after they are handed over by the contractor.
- e) Encroachment their removal and eviction of unauthorized occupants.

Maintenance work: Carries out maintenance works of staff quarters, service buildings etc. The repairs are undertaken based either on complaints lodged or on routine Inspection. Cob webs cleaning, Cleaning of shrubs and bushes in the around railway premises. Maintain registers to keep record of maintenance and repair works undertaken.

Stores: Periodical indents are to be placed on various stores depots for the procurement of material. Loading/un-loading of material. After procurement of material, the same are to be entered in respective ledgers. Day to day issues of materials are to be entered in 'voucher book' maintained in the office.

Water Supply: SE (Works) is responsible for procurement and supply of water to service buildings and residential buildings. In order to keep continuous supply of water, he has to maintain water pipe line, bore wells, reservoirs and overhead tanks and keep them in good fettle.

Roads: SSE/SE (Works) has to maintain and repair the roads when warranted.

Sewerage Line: SSE/SE (Works) arranges staff to attend under ground drainage lines, and cleaning/de- sledge of septic tanks.

Maintenance of gardens: After the plantation and maintenance by the contractor for one year, the gardens are taken over by the SE/JE (Works) for further maintenance and are being maintained with the help of a valve-man for watering the plants.

2.4 DUTIES OF ENGINEERING STAFF (P.Way):

- <u>Gang mate:</u> He supervises the work done by trackmen, custodian of tools, introducing patrolling attention in case of emergencies, weekly twice key-man duty.
- **Keyman:** He performs daily daytime patrolling of track for observing any rail failure and in time protection for safe running of trains and tightens all fittings.
- <u>Spl. Gr. Trackmen</u>: He is entrusted with duties of Monsoon patrolling, Hot Weather patrolling, cold weather patrolling, watchmen at vulnerable locations, pilot men at work spots of special works.
- **Sr. Trackmen**: He performs the duties of Monsoon patrolling, Hot Weather patrolling, cold weather patrolling, watchmen at vulnerable locations, patrol men at work spots of special works.
- **Jr.Trackmen:** For assisting working of small track machines i.e. transportation/carrying to loading and unloading, replacement of glued joints, SEJs, trucking of rails, rail renewals, stacking of rails and various other P. Way materials for declaring scraping, jungle clearance, through gauging for improving TGI values, curve greasing, points and crossing, L.C. approach screening of pumping joints, cleaning of waterways of bridges longitudinal drains, cross drains, cache water drains.
- **Spl.Gr.Store watchman:** For watching store materials and to watching out side dump P. Way materials, temperature, rain fall measuring, Mail collection, stocking of P. Way materials, cleaning of office compound, Receive phone message and passing the message controlling in charges.
- <u>Sr.Gr.Store Watchman:</u> He is entrusted with duties of watching store materials and to watching out side dump P. Way materials, temperature, rain fall measuring, Mail collection, stocking of P. Way materials, cleaning of office compound, Receive phone message and passing the message controlling in charges.
- **Spl.Gr.Trolly man**: Pushing of Trolley, Measuring along with PWI i.e.

curves, points and crossings, SEJ's Pre and post Tampering measurements, L.C. Gates measuring, Attending emergency Rail/Weld failures along with PWI's, Ballast stocks measurements, P. Way material Inventory, Scrap rails Inventory, ASV/DSK, Accompanying along with PWI's, Joint Inspection with SSE/Signals, Traffic Inspector, SE/Bridges and collecting of various details of track works.

- **Jr.Gr.Trollyman**: Pushing of Trolley, Measuring along with PWI i.e. curves, points and crossings, SEJ's Pre and post Tampering measurements, L.C. Gates measuring, Attending emergency Rail/Weld failures along with PWI's, Ballast stocks measurements, P.Way material Inventory, Scrap rails Inventory, ASV/DSK, Accompanying along with PWI's, Joint Inspection with SSE/Signals, Traffic Inspector, SE/Bridges and collecting of various details of track works.
- <u>Carpenter Khalasi:</u> Deployed for laying and adjusting Wooden layouts
 Points and crossings rail screw prodding and tightening of wooden blocks,
 cutting and drilling, providing of wooden block at the time of R/W failures,
 and attending Section Trolley's repairs.
- Painter: Painting of curves, points and crossings, SEJ Pillars, Fouling Marks, Km stones, LC. Gates Boards Caution Order Boards, curve Boards, Points Boards letter painting, checking rails, painting, Bridges DL, HFL Level Markings Bridges Nos. paintings, Scrap rails measurements marked with paint, Stencil cutting, Weld collar painting.

2.5 work Load of Works Department: Integrated Track Kilometers (ITKMS):

The work Load of P.Way Organisation is represented in the form of ETKMs (Equated track Kms) & Work Load of works Organisation is Integrated Track Kilometers (ITKMS) of the concerned units, which is shown below to throw light on the workload of the various units.

- a) buildings (i.e Plinth area in sqms),
- b) Pipe line length (ie. Water pipe line and sewage pipe line)
- c) Roads (Length in metres)
- d) Pump stations and sewages schemes (Measured in numbers)
- e) Circulating area (Area sqmts)
- f) Platforms.

All the above factors are converted into ETKMS & ITKMS and furnished in the following table

S.No.	Depot	Route KM	Track KM	ETKM	Total ITKMS
1	ADEN/ NLR	78.44	156.880	439.815	785.528
2	ADEN/ OGL	88.730	177.460	380.240	558.817
3	ADEN/ BPP	132.330	260.690	585.00	786.554

4	ADEN/ EE	83.600	167.200	378.441	528.439
5	ADEN/ RJY	76.810	149.600	377.816	728.328
6	ADEN/ SLO	148.967	355.390	534.522	976.740
7	ADEN/ TUNI	84.820	169.640	344.038	479.471
8	ADEN/ BZA	32.380	56.280	254.530	449.086
9	ADEN/ BVRM	214.510	214.510	406.797	535.823
10	ADEN/ Building s	0	0	0	690.521
	Grand Total	940.587	1707.65	3701.199	6519.307

3.0 CRITICAL EXAMINATION:

- **3.1** On critical examination of the scale check of Engineering department over BZA division, it can be seen that out of sanctioned strength of 6730 staff, 5428 staff are working at present with 1302 vacancies in different grades.
- 3.1.1 The work-study team approached Sr.DEN/Co-Ord/BZA in order to conduct Work-study on engineering department over BZA Division.
- **3.2 General:** Vijayawada Division is an important division in South Central Railway. The prime job of engineering department is to keep the wheels on Rail, either in motion or in stable condition. For this purpose, it has to keep on maintaining the track in good fettle from beginning to the end. In addition to this, there are many Service Buildings and residential buildings in the division to cater to the needs of the employees. Since train services are round the clock, water and other amenities are to be provided to the passenger so that smooth functioning is maintained. Round the clock water supply is also required for the Railway Hospitals and other service buildings in the division. In this direction Engg organization of BZA division plays a major role in up keep of the same.
- **3.3 Yardsticks:** In olden days, when these yardsticks were come into force, all these activities were managed by the depots' staff itself. However, nowadays Zonal Contracts are introduced to make easy and procurement of required material to achieve the early performance in a satisfactory level without the help of our labour, as we are under going into these contracts for early achievement along with an intention to save some work force. That is why the Work study cell ignores them because yardsticks have become outdated and not suggest-able to implement in Engineering Organization from the date when the Zonal Contracts for the activities have been introduced.
- **3.4 Application of Benchmarking Norms**: Benchmarking is based on dynamic and comparative analysis and is a very useful tool to manage efficient deployment of staff and monitor effects of improvement in working practices, use of new technologies and level of outsourcing. Board in successive meetings has directed all units to achieve average of Indian Railway Benchmark.

June 2018 IR average and Bench Marking of BZA divn is as follows.

Organization	MPR of BZA	IR avg MPR	Bench Mark MPR			
P.Way	1.24	1.41	0.73			
Buildings	0.18	0.20	0.04			
Bridges	0.11	0.08	0.04			

- Engineering department of BZA division is below IR average in works organization and P.way. Above IR average in Bridges organizations.
- 3.5 Major changes have taken in the working system of Engineering department, as some works are being done on zonal contract. Many works have been outsourced. Recently the works department has out sourced number of activities in a big way House Keeping Services Maintenance of service buildings (Divisional Office, Officers Rest House/Subordinate Rest house including maintenance of roads, roofs, maintenance of Lawn and Gardens etc) and rodent control treatment at stations.

In the **P.Way wing, some works are being outsourced** such as track maintenance works.

➤ In order to have first hand information the Work-study team visited all the SSE units, sections, yards and offices of the Engineering department of BZA division and observed the working pattern, various processes involved in maintenance of activities.

3.6 The Work-study team made an analysis on the requirement of staff based on the following parameters.

- a) No. of activities under out sourcing in Engineering organization.
- **b)** The activities permitted to work under Contract in Engineering organization.
- c) Requirement of Artisan/Khalasi staff on need base
- d) Summary of Save Position of engineering department
- e) Recommendation to surrender Artisan/Khalasi staff due to **Contract works/outsourcing** activities and **posts are lying vacant/redundant**.

3.6 a) No. of activities under Out sourcing in Engineering organization of BZA division.

S. No	Nature of the work	Unit /section
1	NS-Repairs to damaged CI over head tank with grp tank with staging and pipeline for watering of coaches, service buildings and staff colony.	DEN/East/BZA
2	Supply and staging 50mm guage hard and durable machine crushed stone ballast at BZA depot	DEN/East/BZA
3	SW-1:BVRM-Proposed repairs to vacant rooms available on first floor of west side stn building for providing rest rooms for running staff at BVRM. SW-2:BVRM- Proposed Extention of OFC masonry at BVRM -Reg.	DEN/East/BZA
4	SW-1:Guntupally- Proposed construction of staff quarters type-II -8 units at GTPL. SW-2:GTPL Proposed construction of staff quarters type-III -4 units at GTPL. SW-3:BZA -Repairs to borewells at G.Hills,ELS,Frieght shed,wagon depot and control office under SSE/W/WA/BZA	ADEN/Buildings/BZA
5	SW-1:BZA-Replacement of damaged platform surface wotj stoneslab flooring on PF NO.1,2/3,4/5,6/7,8/9,and 10. SW-2:BVRM-Provision of drinking water facility,toilet facility for labour at BVRM Goodsshed office.	DEN/East/BZA
6	BZA Division .Hiring of lorries for track maintenance for the use of SSE/P.WAY/S/BZA,N/BZA,KKLR,GDV.	DEN/East/BZA
7	Supply and stacking 50mm guage hard and durable machine crushed machine stone ballast at NDD depot.	DEN/East/BZA

	office, other buildings, circulating area at DRM	
	office, compound maintenance of Garden in Loco	
	colony, RE colony, division garden cum parcel	
	office to SRP office along altex road in ADEN	
	building. Providing house keeping in the	
	hospitality services for the officers Rest house in	
	sub ordinate Rest house at NS, BVRM, GDV &	
	MTM stations.	
9	Vijayawada-Attending valve operation for water	ADEN/Bldgs/BZA
	distribution in RE ,upyard and mineral siding	, -3-,
	colonies in SSE/worksWA/BZA	
	section(24months)	
10	Ultrasonic testing of rails&welds on track using	ADEN/Bldgs/BZA
	contractors hand operated Ultrasonic rail tester	, 5,
	covering area of rail section.	
11	Safety related track repairs & maintenance	ADEN/BZA
12	Maintenance of rodent management for BZA	SSE/Works/BZA
	station	,
13	House keeping & hospitality services for the	SSE/Works/BZA
	officers Rest houses, subordinate Rest house	, ,
	premises	
14	BZA-VSKP section-SW-1-BZA-VSKP section-	Sr.DEN/BZA
	Ravikampadu:provision of drinking water	-
	facility, toilet facilty and covered shed for labour.	
	SW-2-Imrovements to SLO,TDD and COA port	
	goods shed.	
	SW-3-KKRM,CEL,VGT,BPY,NBM,MRPL	
	-	
	Improvements to water supply system	
15	Safety related track repairs	SSE/P.Way/TUNI, AKP sections
15 16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged	SSE/P.Way/TUNI, AKP sections Sr.DEN/BZA
_	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3.	
_	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff	
_	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony	
_	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and	
	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot.	
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates.	Sr.DEN/BZA
	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot.	Sr.DEN/BZA SSE/Works/TEN,
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates.	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL,
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ,
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR,
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR,
16 17 18	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR
16	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR,
17 18	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR SSE/Works/TUNI
16 17 18	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY,	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR
17 18 19 20	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards.	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/BTTR, SSE/Works/GDR SSE/Works/TUNI SSE/Works/RJY
17 18	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping &	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR SSE/Works/TUNI
17 18 19 20	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR SSE/Works/TUNI SSE/Works/RJY
16 17 18 19 20 21	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and subordinate Rest house at RJY	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/NLR, SSE/Works/GDR SSE/Works/TUNI SSE/Works/RJY SSE/Works/RJY
16 17 18 19 20 21	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and subordinate Rest house at RJY Safety related track repairs	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/BTTR, SSE/Works/TURI SSE/Works/TUNI SSE/Works/RJY SSE/Works/RJY SSE/Works/RJY
16 17 18 19 20 21 22 23	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and subordinate Rest house at RJY Safety related track repairs Safety related track repairs	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/BTTR, SSE/Works/TURI SSE/Works/TUNI SSE/Works/RJY SSE/Works/RJY SSE/Works/RJY SSE/P.Way/TDD, RJY sections SSE/P.Way/TUNI, AKP sections
16 17 18 19 20 21 22 23 24	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and subordinate Rest house at RJY Safety related track repairs Safety related track repairs Safety related track repairs	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/BTTR, SSE/Works/GDR SSE/Works/TUNI SSE/Works/TUNI SSE/Works/RJY SSE/Works/RJY SSE/P.Way/TDD, RJY sections SSE/P.Way/TUNI, AKP sections SSE/P.Way/SLO, TAP sections
16 17 18 19 20 21 22 23	Safety related track repairs SW-1-RJY-Repairs to broken and damaged A.C.Sheet roof cover over P.Fs on P.F.no.1,2,&3. S.W-II-RJY-Repairs to leaky roofs os staff quarters in west colony S.E-III-RJY-Repairs to stacking area and drainage facilities of minor ballast depot. SW-IV-provision of borewells for LC gates. Engagement of skilled artisan staff Engagement of skilled artisan staff House keeping & maintenance services for Rest house at VSKP Maintenance of rodent management for RJY, GVM station and service buildings and yards. BZA-VSKP sections – House keeping & maintenance services for offices Rest house and subordinate Rest house at RJY Safety related track repairs Safety related track repairs	Sr.DEN/BZA SSE/Works/TEN, SSE/Works/BPP, SSE/Works/EE SSE/Works/OGL, SSE/Works/KVZ, SSE/Works/BTTR, SSE/Works/BTTR, SSE/Works/TURI SSE/Works/TUNI SSE/Works/RJY SSE/Works/RJY SSE/Works/RJY SSE/P.Way/TDD, RJY sections SSE/P.Way/TUNI, AKP sections

26	Engagement of skilled artisan staff	SSE/Works/East, SSE/Works/West, SSE/Works/STPM, KCC, G-peta
27	Watering arrangements at BZA, RYP, BVRM and GDV stations	DEN/East/BZA
28	Daily maintenance of gardens of the various offices, bunglows, Rly offices, club building & Rly function hall	G-Peta colony
29	Safety related track repairs & maintenance	SSE/P.Way/GDV, KKLR & BVRM
30	Attending valve operation for water distribution	Winch pet, G-Pet
31	House keeping & hospitality services for the officers Rest houses, subordinate Rest house premises	SSE/Works/BZA
32	Safety related track repairs & maintenance	SSE/P.Way/BZA, SSE/P.Way/South/BZA
33	Safety related track repairs & maintenance between STPM-UPD	SSE/P.Way/KVZ
34	Safety related track repairs & maintenance between PGU-STPM	SSE/P.Way/DTTR
35	Safety related track repairs & maintenance between PGU-GDR	SSE/P.Way/NLR
36	Proposed safety related track repairs & maintenance	ADEN/BPP

3.5 b) The activities permitted to work under Contract in Engineering organization.

some works are being done on Zonal contract Viz; white washing, colour washing, Distempering & painting, polishing & varnishing, Road and platform works, and Water proofing etc.

3.5 c) Requirement of Artisan/Khalasi staff on need base

Multi purpose khalasi:

Multi purpose khalasi is required to assist the Artisan staff like Black smithy, welder, Brick Layer, carpenter etc. But, most of the activities in the works organization are under Zonal contract system and these activities are not regular. There are total 23 units in Works organization of BZA division and each unit requires 8 Multi purpose khalasis. Hence, 184 no.s Multi purpose khalasis are required. Leave Reserve @12.5% for 184 Multi purpose khalasis is 23. Hence, total requirement of Pipeline fitter is 184+23=207.

Designation	Sanction	Actual	Vacancy	Requirement	Excess
Multi purpose khalasi	221	200	21	207	14

The sanctioned strength of Multi purpose khalasi is 221, the actual staff is 200, requirement is 207 and found 14 staff excess on requirement.

> Brick Layer:

Most of the Brick Layer activities in the works organization are under Zonal contract system and the activity is not regular work. One Brick Layer with one khalasi is required for each unit. There are total 23 units in Works organization of BZA division. Hence, 23 no.s Brick Layers are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 Brick Layer is 3. Hence, total requirement of Brick Layer is 23+3=26. In case of exigency, multipurpose khalasi may be used.

Designation Sanction Actual	Vacancy	Requirement	Excess on
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					requirement
Brick Layer	46	22	24	26	20

The sanctioned strength of Brick Layer is 46, the actual staff is 22, requirement is 26 and found 20 staff excess on requirement.

➤ **Painter**: Since most of the Painter activities in the works organization are under Zonal contract system and the activity is not regular work. In case of exigency, multipurpose khalasi may be used.

Painter	13	9	4	9	requirement 4
Designation	Sanction	Actual	Vacancy	Requirement	Excess on

The sanctioned strength of Painter is 13, the actual staff is 9, requirement is 9 and found 4 staff excess on requirement.

As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/SCR advised all DRMs to intitiate action to **surrender vacant/redundant posts like Black smithy**, **carpenter**, **Luskar**, **painter**, **Plumber etc.**

Carpenter: Since most of the carpenter activities in the works organization are under Zonal contract system and the activity is not regular work. One carpenter with one khalasi is required for each unit. There are total 23 units in Works organization of BZA division. Hence, 23 no.s carpenters are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 Carpenter is 3. Hence, total requirement of Carpenter is 23+3=26. In case of exigency, multipurpose khalasi may be used.

Carpenter	43	16	27	26	17
Designation	Sanction	Actual	vacancy	Requirement	requirement
Designation	Sanction	Actual	Vacancy	Requirement	Excess on

The sanctioned strength of carpenter is 43, the actual staff is 16, requirement is 26, and found 17 staff excess on requirement.

➤ **SM fitter/Plumber:** Most of the SM fitter/Plumber activities in the works organization are under Zonal contract system and the activity is not regular work. One no. Pipeline fitter/Plumber is required for each unit. There are total 23 units in Works organization of BZA division. Hence, **23 no's** SM fitter/Plumber are required to execute the work in 23 units of Works organization. Leave Reserve @12.5% for 23 SM fitter/Plumber is 3. Hence, total requirement of carpenters is 23+3=26.

Designation	Sanction	Actual	Vacancy	Requirement	Excess
SM fitter/Plumber	38	21	17	26	12

The sanctioned strength of SM fitter/Plumber is 38, the actual staff is 21, requirement is 26, and found 12 staff excess on requirement.

- ➤ As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/SCR advised all DRMs to intitiate action to surrender vacant/redundant posts like Black smithy, carpenter, Luskar, painter, Plumber etc.
- **3.5 d)** Recommendation to surrender Artisan/Khalasi staff due to **Contract works/ outsourcing** activities and **posts are lying vacant/redundant**.

Summary of Requirement of Artisan/khalasi staff on need based on practical observation.

S.No.	Design	Sanction	Actual	Vacancy	Require ment	Excess
1	Multi purpose khalasi	221	200	21	207	14

		361	268	93	294	67
5	Plumber	38	21	17	26	12
4	Carpenter	43	16	27	26	17
3	Painter	13	9	4	9	4
2	Brick Layer	46	22	24	26	20

The sanctioned strength of above artisan and khalasi staff is 361, the actual staff is 268, requirement is 294, and found 67 staff excess on requirement.

As per D.O No.SCR/P-HQ/MPP/156/Rightsizing/VIII, dated 23.01.2017, AGM/ SCR advised all DRMs to intitiate action to surrender vacant posts like Black smithy, carpenter, Luskar, painter, Plumber etc._____

Hence, Recommended as follows.

òçðÒîðòÜäð RECOMMENDATION:

> It is recommended to surrender 67 posts from sanctions of Engineering department over BZA division.

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4.0 òãðÃÃðóÚð ÑðòÜÂððÙð FINANCIAL IMPLICATIONS:

4.1 When the recommendations are accepted, the recurring savings on surrender of the following posts in Engineering department over BZA Division will be as follows:

S N o	Category	Scale		No.		6 4-	DA @ 9%	Emolume	Total Emoluments	
		From	То	of po sts	Mean Pay	Grade Pay	3 70	nts P.M (in Rs.)	P.A (in Rs.)	
1	Multi purpose khalasi	18000	56900	14	37450	1800	3370	571480	6857760	
2	Brick Layer	18000	56900	20	37450	1900	3370	816400	9796800	
3	Painter	18000	56900	4	37450	1900	3370	163280	1959360	
4	Carpenter	18000	56900	17	37450	1900	3370	693940	8327280	
5	Plumber	1800	56900	12	37450	1900	3370	489840	5878080	
	TOTAL			67				2734940	32819280	

On implementation of the recommendations of Work-study report, an annual savings of **Rs.3.28 crores** can be achieved.

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SI. No. ªÎÙð	Description	Para No.
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01	 òçðÒîðòÜäð Recommendation: ➤ It is recommended to surrender 67 posts from sanctions of Engineering department over BZA division. 	3.5 d
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